



Title			
SimpleFOC PowerShield			
Size	Number	Revision	
A2	0.3		
Date	06/05/2021	Sheet	of
File	C:\Users\j\SimpleFOC\Driver\SchDoc	Drawn By	

SimpleFOC  
project

12V  
A/U  
B/U  
GND  
3V3

INA3

R\_CS3

BTN3

BTN2

R\_CS1

INA1

BTN1

3V3 5V GND VIN

SimpleFOC  
PowerShield  
v0.3

12-35V  
50A peak

GND

L1

Name	Description	Designator	Quantity	Value	PackageReference
RVT1V471M1010 VEJ471M1ETR101 0		CAP_PWR	1		
INA240		INA1, INA3	2		
I7805		L1	1		
solder_connectio n		SCENC, SCI2C, SCL	3		
solder_connectio n_four		SF4, SFA, SFI	3		
solder_connectio n_tripple		ST_CS1, ST_CS3, ST1, ST2, ST3, STB	6		
TB002-500-03BE		TB_MOT	1		
TB002-500-02BE		TB_PWR	1		
BTN8982	BTN8982	BTN1, BTN2, BTN3	3		
Cap Semi	Capacitor (Semiconductor SIM Model)	CBY1, CBY3	2	0.1uF	C0603
Cap Semi	Capacitor (Semiconductor SIM Model)	C_IS1, C_IS2, C_IS3	3	1nF	C0603
Cap Semi	Capacitor (Semiconductor SIM Model)	C_O1, C_O2, C_O3	3	220nF	C1206
Cap Semi	Capacitor (Semiconductor SIM Model)	C_SR1, C_SR2, C_SR3, CL	4	100nF	C1206
Header 5	Header, 5-Pin	P_ENC	1		
Header 6	Header, 6-Pin	P3	1		
Header 8	Header, 8-Pin	P1, P4	2		
Header 10	Header, 10-Pin	P2	1		
Res3	Resistor	R1, R2, R3, R4, R5, R6	6	10k	J1-0603
Res3	Resistor	RPA, RPB, RPC	3	3.3K	J1-0603
Res3	Resistor	RSCL, RSDA	2	4.7K	J1-0603
Res3	Resistor	R_CS1, R_CS3	2	0.001	RESC6332
Res3	Resistor	R_IS1, R_IS2, R_IS3, RL	4	1K	J1-0603
Res3	Resistor	R_SR1, R_SR2, R_SR3	3	0.51k	J1-0603
LED3	Typical BLUE SiC LED	D1	1		3.5X2.8X1.9